SAE

Supervised Agricultural Experience

The Connection Between Supervised Agricultural Experiences (SAE) and Academic Success in Agricultural Education

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What is the connection between Supervised Agricultural Experiences (SAE) and academic success? Various studies have indicated a linkage exists between SAEs and academic achievement. Other studies have not produced empirical data for a linkage between SAEs and academic achievement. Mixed findings indicate a need for more in-depth study.

SAEs provide students the opportunity to extend their learning outside of the classroom and to adapt the learning to meet the individual needs of the student (Stewart & Birkenholtz, 1991). Experiential learning is beneficial as a means to teach transferable skills that assist students to develop a process of lifelong learning and apply theory and concepts to solve real-world problems (Dailey, et al., 2001). Ramsey and Edwards (2004) surmised that an SAE is an informal learning opportunity that could be used to increase science achievement. Although academic achievement is an important component of SAEs, it is only part of its purpose (Newcomb, et al., 2004; Talbert, et al., 2005).

Some researchers have found a positive relationship between SAEs and academic achievement using a variety of research methods and approaches. In ornamental horticulture, Noxel and Cheek (1988) found a positive relationship between scope, as measured with Productive Man Work Units (PMWU), and student achievement. Using a written test as their measurement tool, Arrington and Cheek (1990) found a positive relationship between SAE participation and achievement among sophomores in general agricultural education programs. A significant, positive correlation was found between SAE participation and student achievement in agriscience (Cheek, et al., 1994).

Other researchers have not been able to link SAEs to academic achievement. Tylke and Arrington (1988) found no positive relationship between SAE scope, as measured with PMWU, and student achievement when studying livestock production SAE. Randell, et al. (1993) found no positive relationship between SAE scope, as measured with PMWU, and student achievement when studying a group of students enrolled in a Practical Skills in Agricultural Sciences class in Florida.

There have been attempts to explain why some researchers have struggled with the issue of measuring the impact of SAEs and why other researchers have found mixed research results. At issue is 1) how to measure the impact and SAE scope (Randell & Arrington, 1993), 2) how to define SAE, its focus and its direction (Dyer & Osborne, 1995), and 3) how to identify SAE program quality (Dyer & Osborne, 1996). Dyer and Osborne (1996) found no guidelines as to how program quality should be measured and/or evaluated and admitted that, at the time of their study, no empirical research had been conducted to suggest that SAEs are educationally beneficial (Dyer & Osborne, 1995). In an era of scarce resources and accountability related to student achievement, Ramsey and Edwards (2004) urge the agricultural education profession to provide empirical data which supports the assumption that agricultural education positively impacts academic achievement in science through informal learning opportunities like SAEs.

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